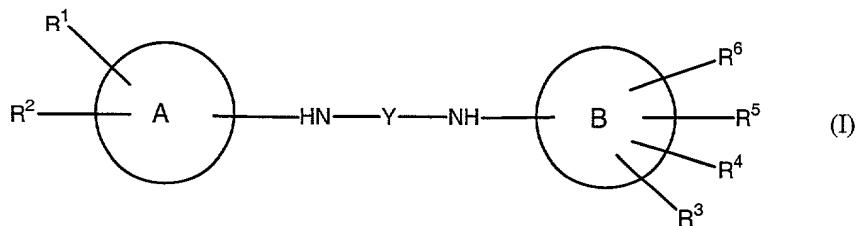


We claim:

1. Compounds of the formula (I)

5



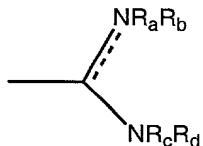
or a salt thereof, where

10 Y is C=O, C=S, C=NH, (C=O)₂, or SO₂;

(A) and (B) are each independently an aromatic hydrocarbon group which optionally contains one or more heteroatoms selected from the group consisting of S, O, and N, wherein the heteroatom N is optionally substituted with R', and/or the heteroatom S is optionally bonded to =O or (=O)₂;

15 20 R' is hydrogen, hydroxyalkyl, haloalkyl, aminoalkyl, alkoxy, cyanoalkyl, alkyl or an unsaturated or saturated carbocyclic group selected from the group consisting of cyclopentyl, cyclohexyl, aryl and heteroaryl;

25 R¹ is



where R_a and R_c are each independently hydrogen, -O-(CO)-R' (where R' is as defined above), hydroxyl,

- 100
- hydroxyalkyl, haloalkyl, aminoalkyl, alkoxy,
cyanoalkyl, alkyl or an unsaturated or saturated
carbocyclic group selected from the group
consisting of cyclopentyl, cyclohexyl, aryl,
heteroaryl; R_b is an optional substituent which
may be independent of R_a and R_c and may be selected
from the group as defined above for R_a and R_c; R_d
is hydrogen or one of the following groups:
-(CO)-R_e where R_e is independently hydrogen,
alkoxy, alkylthio, halogen, haloalkyl,
haloalkyloxy, hydroxyalkyl, hydroxyalkylamino,
alkyl, aryl, heteroaryl, amino, aminoalkyl or
alkylamino group;
-(CH₂)_n-R_f where R_f is independently hydrogen, a
hydroxy-alkyl, an alkyl, an allyl, an amino, an
alkylamino, a morpholino, 2-tetrahydrofuran, N-
pyrrolidino, a 3-pyridyl, a phenyl, a benzyl, a
biphenyl or another heterocyclic group and n is 0,
1, 2 or 3;
-NR_aR_b where R_a and R_b are defined above;
or R_a forms together with R_d a 5- or 6- membered
unsaturated or saturated heterocyclic ring which
optionally has 0 to 3 substituents R'';
the dotted line means a double bond unless there is a
substituent R_b in the formula of R¹ as defined
above.
- R'' is independently hydrogen, alkoxy, alkylthio,
aminoalkyl, halogen, -CO₂R', -CR'O, haloalkyl,
haloalkyloxy, -NO₂, -CN, hydroxyalkyl, alkyl,
aryl, heteroaryl, amino, alkylamino or aminoalkyl
group or a double bonded oxygen, wherein R' is as
defined above;
- R² is a hydrogen, a halogen, alkoxy, alkylthio, -
CO₂R', -CR'O, haloalkyl, haloalkyloxy, -NO₂, -CN,

hydroxy, hydroxyalkyl, alkyl, aryl, amino, alkylamino or an aminoalkyl group;

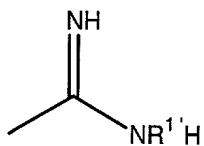
5 R³ is a hydrogen, a halogen, haloalkyl, -NO₂, -CN, an alkyl or an aryl group;

10 R⁴ is a hydrogen or a group capable of hydrogen bond formation except for a group as defined for substituent R¹;

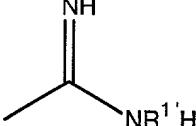
15 R⁵ is hydrogen or, independently of R⁴, a group selected from the groups as defined above for R⁴

20 R⁶ is hydrogen or, independently of R², a group selected from the groups as defined above for R²; and

25 with the proviso that the compounds of the formula (I) are not compounds in which Y is equal to C=O, both (A) and (B) are a phenyl group, and R¹ is the group

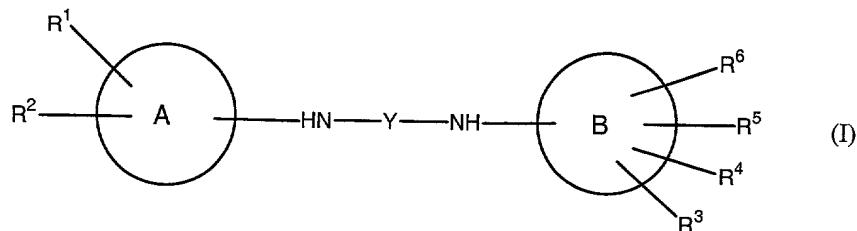


30 where R¹' is hydrogen or phenyl, R², R³, R⁵, and R⁶ are identical and are hydrogen and R⁴ is phenyl, benzyl, phenoxy, chloro or a dimethylamino group in the 3- or 4-position to the NH-Y-NH group of formula(I); and compounds in which (A) and (B) are phenyl and R⁴, R⁵ or R⁶ are in the ortho-position to the NH-Y-NH group of formula(I).

2. The compounds according to Claim 1 with the proviso that the compounds of the formula (I) are not compounds
 5 in which Y is equal to C=O, (B) is a benzofuranyl, dibenzofuranyl, 1-alkylindol or aryl (optionally substituted by alkyl, halogen, trihaloalkoxy or N,N-dialkylamino) and R¹ is the group
- 10 
- where R¹' is hydrogen, alkyl, acyl, aryl, 1-alkylindolyl or alkylthio.
- 15 3. The compounds according to Claim 1, wherein (A) and (B) are both a phenyl group.
- 20 4. The compounds according to claim 1, wherein R², R³, R⁵ and/or R⁶ are hydrogen.
5. The compounds according to claim 1, wherein R¹ is an optionally substituted or cyclic amidine.
- 25 6. The compounds according to claim 1, wherein R_a and/or R_c are hydrogen and/or R_b is not present.
7. The compounds according to claim 1, wherein R⁴ is an arylsulphone, sulphonamide, alkylsulphonamide, arylsulphonamide, alkylsulphone or
 30 arylalkylsulfonamide where the substituents are independently one or more of the following groups: hydrogen, halogen, haloalkyl, haloalkoxy, CONRR',

$\text{SO}_2\text{NRR}'$, CO_2R and sulphonamide, where R and R' independently are as defined above.

8. The compounds according to claim 1 as a
5 medicament.
9. A process for the preparation of a compound
according to Claim 1.
- 10 10. A method of using a compound according to formula
(I)

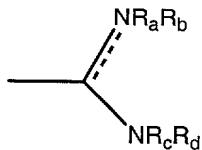


15 or a salt thereof, where

Y is $\text{C}=\text{O}$, $\text{C}=\text{S}$, $\text{C}=\text{NH}$, $(\text{C}=\text{O})_2$ or SO_2 ;

- (A) and (B) are each independently an aromatic hydrocarbon group which optionally contains one or more heteroatoms selected from the group consisting of S, O and N, wherein the heteroatom N is optionally substituted with R', and/or the heteroatom S is optionally bonded to =O or $(=O)_2$;
20
- R' is hydrogen, hydroxyalkyl, haloalkyl, aminoalkyl, alkoxy, cyanoalkyl, alkyl or an unsaturated or saturated carbocyclic group selected from the group consisting of cyclopentyl, cyclohexyl, aryl,
25
- and heteroaryl;
30

R^1 is

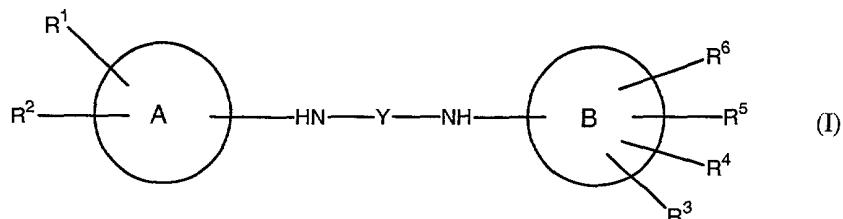


- where R_a and R_c are each independently hydrogen, -O-
- 5 (CO)- R' (where R' is as defined above), hydroxyl, hydroxyalkyl, haloalkyl, aminoalkyl, alkoxy, cyanoalkyl, alkyl or an unsaturated or saturated carbocyclic group selected from the group consisting of cyclopentyl, cyclohexyl, aryl, heteroaryl; R_b is an optional substituent which may be independently of R_a and R_c and may be selected from the group as defined above for R_a and R_c ; R_d is hydrogen or one of the following groups:
- 10 -(CO)- R_e where R_e is independently hydrogen, alkoxy, alkylthio, halogen, haloalkyl, haloalkyloxy, hydroxyalkyl, hydroxyalkylamino, alkyl, aryl, heteroaryl, amino, aminoalkyl or alkylamino group;
- 15 -(CH₂)_n- R_f where R_f is independently hydrogen, a hydroxy-alkyl, an alkyl, an allyl, an amino, an alkylamino, a morpholino, 2-tetrahydrofuran, N-pyrrolidino, a 3-pyridyl, a phenyl, a benzyl, a biphenyl or another heterocyclic group and n is 0, 1, 2 or 3;
- 20 -NR_aR_b where R_a and R_b are defined above; or R_a forms together with R_d a 5- or 6-membered unsaturated or saturated heterocyclic ring which optionally has 0 to 3 substituents R'';
- 25 the dotted line means a double bond unless there is a substituent R_b in the formula of R^1 as defined above.
- 30

- R'' is independently hydrogen, alkoxy, alkylthio, aminoalkyl halogen, -CO₂R', -CR'O, haloalkyl, haloalkyloxy, -NO₂, -CN, hydroxyalkyl, alkyl, aryl, heteroaryl, amino, alkylamino or an aminoalkyl group or a double bonded oxygen, wherein R' is as defined above;
- 5 R² is a hydrogen, a halogen, alkoxy, alkylthio, -CO₂R', -CR'O, haloalkyl, haloalkyloxy, -NO₂, -CN, hydroxy, hydroxyalkyl, alkyl, aryl, amino, alkylamino or an aminoalkyl group;
- 10 R³ is a hydrogen, a halogen, haloalkyl, -NO₂, -CN, alkyl or an aryl group;
- 15 R⁴ is a hydrogen or a group capable of hydrogen bond formation except for a group as defined for substituent R¹;
- 20 R⁵ is hydrogen or, independently of R⁴, a group selected from the groups as defined above for R⁴
- 25 R⁶ is hydrogen or, independently of R², a group selected from the groups as defined above for R²; for the preparation of a medicament for the inhibition of the intracellular protein-degradation pathway.
- 30 11. The method according to Claim 10 for the preparation of a medicament for the treatment of diseases which are cured or relieved by the inhibition of the proteasome pathway.
- 35 12. The method according to Claim 10 for the preparation of a medicament for the treatment of diseases which are cured or relieved by the

inhibition of the chymotryptic activity of the multicatalytic proteasome complex.

13. The method according to Claim 10, wherein the
5 compounds are as defined in Claim 1.
14. A method of using a compound according to formula
(I)



10

or a salt thereof, where

Y is C=O, C=S, C=NH, (C=O)₂ or SO₂;

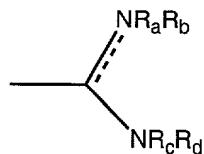
15

(A) and (B) are each independently an aromatic hydrocarbon group which optionally contains one or more heteroatoms selected from the group consisting of S, O and N, wherein the heteroatom N is optionally substituted with R', and/or the heteroatom S is optionally bonded to =O or (=O)₂;

20 R' is hydrogen, hydroxyalkyl, haloalkyl, aminoalkyl, alkoxy, cyanoalkyl, alkyl or an unsaturated or saturated carbocyclic group selected from the group consisting of cyclopentyl, cyclohexyl, aryl and heteroaryl;

25

R¹ is



- where R_a and R_c are each independently hydrogen, -O-
 (CO)-R' (where R' is as defined above), hydroxyl,
 5 hydroxyalkyl, haloalkyl, aminoalkyl, alkoxy,
 cyanoalkyl, alkyl or an unsaturated or saturated
 carbocyclic group selected from the group
 consisting of cyclopentyl, cyclohexyl, aryl,
 heteroaryl; R_b is an optional substituent which
 10 may be independent of R_a and R_c and may be selected
 from the group as defined above for R_a and R_c ; R_d
 is hydrogen or one of the following groups:
 - (CO)-R_e where R_e is independently hydrogen,
 alkoxy, alkylthio, halogen, haloalkyl,
 15 haloalkyloxy, hydroxyalkyl, hydroxyalkylamino,
 alkyl, aryl, heteroaryl, amino, aminoalkyl or
 alkylamino group;
 -(CH₂)_n-R_f where R_f is independently hydrogen, a
 20 hydroxy-alkyl, an alkyl, an allyl, an amino, an
 alkylamino, a morpholino, 2-tetrahydrofuran, N-
 pyrrolidino, a 3-pyridyl, a phenyl, a benzyl, a
 biphenyl or another heterocyclic group and n is 0,
 1, 2 or 3;
 25 -NR_aR_b where R_a and R_b are defined above;
 or R_a forms together with R_d a 5- or 6-membered
 unsaturated or saturated heterocyclic ring which
 optionally has 0 to 3 substituents R'';
 30 the dotted line means a double bond unless there is a
 substituent R_b in the formula of R¹ as defined
 above.

R'' is independently hydrogen, alkoxy, alkylthio, aminoalkyl halogen, -CO₂R', -CR'O, haloalkyl, haloalkyloxy, -NO₂, -CN, hydroxyalkyl, alkyl, aryl, heteroaryl, amino, alkylamino or aminoalkyl group or a double bonded oxygen, wherein R' is as defined above;

5 R² is a hydrogen, a halogen, alkoxy, alkylthio, -CO₂R', -CR'O, haloalkyl, haloalkyloxy, -NO₂, -CN, hydroxy, hydroxyalkyl, alkyl, aryl, amino, alkylamino or an aminoalkyl group;

10 R³ is a hydrogen, a halogen, haloalkyl, -NO₂, -CN, alkyl or an aryl group;

15 R⁴ is a hydrogen or a group capable of hydrogen bond formation except for a group as defined for substituent R¹;

20 R⁵ is hydrogen or, independently of R⁴, a group selected from the groups as defined above for R⁴

25 R⁶ is hydrogen or, independently of R², a group selected from the groups as defined above for R²;

30 with the proviso that the compounds of the formula (I) are not compounds in which (A) and (B) are phenyl and R⁴, R⁵ or R⁶ are in the ortho-position to the NH-Y-NH group of the formula(I);

35 for the preparation of a medicament for the treatment of diseases caused by protozoa.

15. The method according to Claim 14, wherein the
35 compounds are as defined in Claim 1.

16. The method according to Claim 14 for the treatment of malaria diseases, trypanosomiasis and/or leishmaniasis.
- 5 17. A method for killing or inhibiting growth or replication of protozoa using a compound according to Claim 1.
- 10 18. A pharmaceutical composition comprising at least one compound according to Claim 1 in combination with other active compounds.